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SINCE FILE

ENTRY

0.21

TOTAL

0.21

SESSION

FILE 'CAPLUS' ENTERED AT 17:18:49 ON 09 FEB 2006 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

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FULL ESTIMATED COST

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=> s tgtagcggcccacgctgg/sqsn

REG1stRY INITIATED

Substance data SEARCH and crossover from CAS REGISTRY in progress... Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

L2 0 L1

=> s taccacgcgacacacttc/sqsn

REG1stRY INITIATED

Substance data SEARCH and crossover from CAS REGISTRY in progress... Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

L4 1 L3

=> d 14

L4 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:10074 CAPLUS

DN 136:65204

TI Transgenic corn plant PV-ZMGT32 (nk603) transformed with DNA construct containing 5-enolpyruvoylshikimate 3-phosphate synthase for conferring glyphosate tolerance

IN Behr, Carl F.; Hironaka, Catherine; Heck, Gregory R.; You, Jinsong

PA Monsanto Technology Llc, USA

SO Eur. Pat. Appl., 25 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN CNTT 1

PATENT NO.							KIN	D DATE	APPLICATION NO.	DATE
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                               20010615
             THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT 3
```

=> s accaagettttataatag/sqsn ·

REG1stRY INITIATED

Substance data SEARCH and crossover from CAS REGISTRY in progress... Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 1 L5

=> d 16

L6 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:10074 CAPLUS

DN 136:65204

TI Transgenic corn plant PV-ZMGT32 (nk603) transformed with DNA construct containing 5-enolpyruvoylshikimate 3-phosphate synthase for conferring glyphosate tolerance

IN Behr, Carl F.; Hironaka, Catherine; Heck, Gregory R.; You, Jinsong

PA Monsanto Technology Llc, USA

SO Eur. Pat. Appl., 25 pp.

CODEN: EPXXDW

DT Patent

LA English

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RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

- (FILE 'HOME' ENTERED AT 17:18:39 ON 09 FEB 2006) FILE 'CAPLUS' ENTERED AT 17:18:49 ON 09 FEB 2006 S TGTAGCGGCCCACGCTGG/SQSN FILE 'REGISTRY' ENTERED AT 17:19:17 ON 09 FEB 2006 0 S TGTAGCGGCCCACGCTGG/SQSN L1FILE 'CAPLUS' ENTERED AT 17:19:37 ON 09 FEB 2006 0 S L1 L2 S TACCACGCGACACACTTC/SQSN FILE 'REGISTRY' ENTERED AT 17:20:40 ON 09 FEB 2006 6 S TACCACGCGACACACTTC/SQSN L3 FILE 'CAPLUS' ENTERED AT 17:21:00 ON 09 FEB 2006 L4S ACCAAGCTTTTATAATAG/SQSN
- FILE 'REGISTRY' ENTERED AT 17:22:13 ON 09 FEB 2006 L5 8 S ACCAAGCTTTTATAATAG/SQSN
- FILE 'CAPLUS' ENTERED AT 17:22:35 ON 09 FEB 2006 L6 1 S L5



results of MAAA

BLASTN 2.2.13 [Nov-27-2005]

Reference:

Altschul, Stephen F., Thomas L. Madden, Alejandro A. Schäffer, Jinghui Zhang, Zheng Zhang, Webb Miller, and David J. Lipman (1997), "Gapped BLAST and PSI-BLAST: a new generation of protein database search programs", Nucleic Acids Res. 25:3389-3402.

RID: 1139520495-2564-183997461739.BLASTQ4

Database: NCBI Genomic Reference Sequences

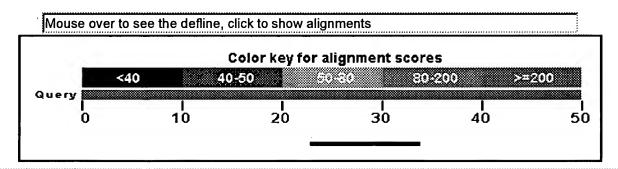
648,380 sequences; 5,833,944,919 total letters

If you have any problems or questions with the results of this search please refer to the ${\tt BLAST\ FAQs}$

Taxonomy reports

Query= Length=50

Distribution of 2 Blast Hits on the Query Sequence



Sequences producing significant alignments:

Score E (Bits) Value

gi|11994090|ref|NC 001666.2| Zea mays chloroplast, complete geno 22.3 1.1

Alignments

Get selected sequences Select all Deselect all

Score = 22.3 bits (11), Expect = 1.1
Identities = 11/11 (100%), Gaps = 0/11 (0%)
Strand=Plus/Plus

Get selected sequences

Select all

Deselect all

```
Database: NCBI Genomic Reference Sequences
    Posted date: Feb 7, 2006 12:38 PM
  Number of letters in database: 142,297
  Number of sequences in database: 2
Lambda
          K
                  Н
            0.711
                      1.31
    1.37
Gapped
Lambda
          K
            0.711
                      1.31
    1.37
Matrix: blastn matrix:1 -3
Gap Penalties: Existence: 5, Extension: 2
Number of Sequences: 2
Number of Hits to DB: 0
Number of extensions: 0
Number of successful extensions: 0
Number of sequences better than 10: 0
Number of HSP's better than 10 without gapping: 0
Number of HSP's gapped: 0
Number of HSP's successfully gapped: 0
Length of query: 50
Length of database: 142297
Length adjustment: 11
Effective length of query: 39
Effective length of database: 142297
Effective search space: 5549583
Effective search space used: 5548725
A: 0
X1: 10 (19.8 bits)
X2: 15 (29.7 bits)
X3: 25 (49.6 bits)
S1: 10 (20.3 bits)
S2: 10 (20.3 bits)
```



results of NIASI

BLASTN 2.2.13 [Nov-27-2005]

Reference:

Altschul, Stephen F., Thomas L. Madden, Alejandro A. Schäffer, Jinghui Zhang, Zheng Zhang, Webb Miller, and David J. Lipman (1997), "Gapped BLAST and PSI-BLAST: a new generation of protein database search programs", Nucleic Acids Res. 25:3389-3402.

RID: 1139520495-2564-183997461739.BLASTQ4

Database: NCBI Genomic Reference Sequences

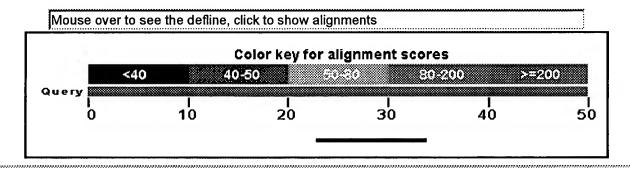
648,380 sequences; 5,833,944,919 total letters

If you have any problems or questions with the results of this search please refer to the ${\tt BLAST\ FAQs}$

Taxonomy reports

Query= Length=50

Distribution of 2 Blast Hits on the Query Sequence



Sequences producing significant alignments:

Score E (Bits) Value

gi|11994090|ref|NC 001666.2| Zea mays chloroplast, complete geno 22.3 1.1

Alignments

Get selected sequences Select all Deselect all

> Tigi|11994090|ref|NC 001666.2| Zea mays chloroplast, complete genome Length=140384

Score = 22.3 bits (11), Expect = 1.1
Identities = 11/11 (100%), Gaps = 0/11 (0%)
Strand=Plus/Plus

Get selected sequences

Select all

Deselect all

```
Database: NCBI Genomic Reference Sequences
    Posted date: Feb 7, 2006 12:38 PM
  Number of letters in database: 142,297
  Number of sequences in database: 2
Lambda
           K
                  Н
    1.37
            0.711
                      1.31
Gapped
Lambda
           K
            0.711
    1.37
                      1.31
Matrix: blastn matrix:1 -3
Gap Penalties: Existence: 5, Extension: 2
Number of Sequences: 2
Number of Hits to DB: 0
Number of extensions: 0
Number of successful extensions: 0
Number of sequences better than 10: 0
Number of HSP's better than 10 without gapping: 0
Number of HSP's gapped: 0
Number of HSP's successfully gapped: 0
Length of query: 50
Length of database: 142297
Length adjustment: 11
Effective length of query: 39
Effective length of database: 142297
Effective search space: 5549583
Effective search space used: 5548725
A: 0
X1: 10 (19.8 bits)
X2: 15 (29.7 bits)
X3: 25 (49.6 bits)
S1: 10 (20.3 bits)
S2: 10 (20.3 bits)
```



results of NNAON

BLASTN 2.2.13 [Nov-27-2005]

Reference:

Altschul, Stephen F., Thomas L. Madden, Alejandro A. Schäffer, Jinghui Zhang, Zheng Zhang, Webb Miller, and David J. Lipman (1997), "Gapped BLAST and PSI-BLAST: a new generation of protein database search programs", Nucleic Acids Res. 25:3389-3402.

RID: 1139520711-10093-27750649669.BLASTQ4

Database: NCBI Genomic Reference Sequences

648,380 sequences; 5,833,944,919 total letters

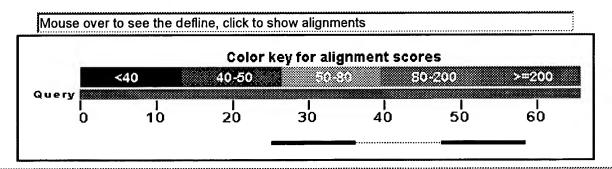
If you have any problems or questions with the results of this search please refer to the ${\underline{{\bf BLAST\ FAQS}}}$

Taxonomy reports

Query=

Length=65

Distribution of 3 Blast Hits on the Query Sequence



Sequences producing significant alignments:

Score E (Bits) Value

gi|11994090|ref|NC 001666.2| Zea mays chloroplast, complete geno 22.3 1.5

Alignments



Score = 22.3 bits (11), Expect = 1.5
Identities = 11/11 (100%), Gaps = 0/11 (0%)
Strand=Plus/Plus

```
Query 48
             GATCTTTTCTC 58
             11111111111
Sbjct 44568
             GATCTTTTCTC
                          44578
Score = 22.3 bits (11), Expect = 1.5
Identities = 11/11 (100%), Gaps = 0/11 (0%)
Strand=Plus/Plus
Query 26
             TCCTCCTCTC 36
             1111111111
Sbjct 83760 TCCTCCTCTCT 83770
Score = 22.3 bits (11), Expect = 1.5
Identities = 11/11 (100%), Gaps = 0/11 (0%)
Strand=Plus/Minus
Query 26
              TCCTCCTCTCT
              11111111111
Sbjct 138977 TCCTCCTCTCT
                           138967
```

Get selected sequences Select all Deselect all

```
Database: NCBI Genomic Reference Sequences
    Posted date: Feb 7, 2006 12:38 PM
  Number of letters in database: 142,297
  Number of sequences in database:
Lambda
          K
    1.37
            0.711
                      1.31
Gapped
Lambda
                  Н
    1.37
           0.711
                      1.31
Matrix: blastn matrix:1 -3
Gap Penalties: Existence: 5, Extension: 2
Number of Sequences: 2
Number of Hits to DB: 0
Number of extensions: 0
Number of successful extensions: 0
Number of sequences better than 10: 0
Number of HSP's better than 10 without gapping: 0
Number of HSP's gapped: 0
Number of HSP's successfully gapped: 0
Length of query: 65
Length of database: 142297
Length adjustment: 11
Effective length of query: 54
Effective length of database: 142297
Effective search space: 7684038
Effective search space used: 7682850
A: 0
X1: 10 (19.8 bits)
X2: 15 (29.7 bits)
X3: 25 (49.6 bits)
S1: 10 (20.3 bits)
```



results of NVAOL

BLASTN 2.2.13 [Nov-27-2005]

Reference:

Altschul, Stephen F., Thomas L. Madden, Alejandro A. Schäffer, Jinghui Zhang, Zheng Zhang, Webb Miller, and David J. Lipman (1997), "Gapped BLAST and PSI-BLAST: a new generation of protein database search programs", Nucleic Acids Res. 25:3389-3402.

RID: 1139520074-12515-142933253334.BLASTQ4

Database: NCBI Genomic Reference Sequences

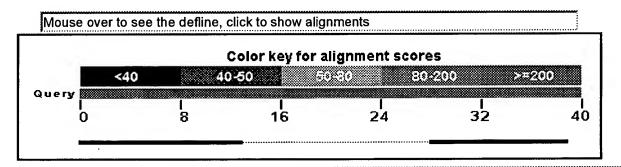
648,380 sequences; 5,833,944,919 total letters

If you have any problems or questions with the results of this search please refer to the ${\tt BLAST\ FAQs}$

Taxonomy reports

Query= Length=40

Distribution of 3 Blast Hits on the Query Sequence



Sequences producing significant alignments:

Score E (Bits) Value

gi|11994090|ref|NC 001666.2| Zea mays chloroplast, complete geno 22.3 0.80

Alignments

Get selected sequences Select all Deselect all

> Tigi|11994090|ref|NC 001666.2| Zea mays chloroplast, complete genome Length=140384

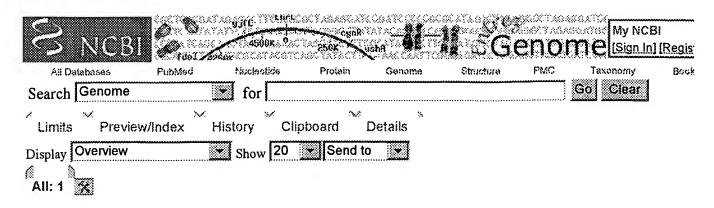
Score = 22.3 bits (11), Expect = 0.80
Identities = 11/11 (100%), Gaps = 0/11 (0%)
Strand=Plus/Plus

```
TCGATCCAAAA 13
Query 3
              11111111
      66973
             TCGATCCAAAA
                          66983
Sbjct
Score = 22.3 \text{ bits (11)}, Expect = 0.80
Identities = 11/11 (100%), Gaps = 0/11 (0%)
Strand=Plus/Plus
Query 1
             AATCGATCCAA 11
              Sbjct 73754 AATCGATCCAA 73764
Score = 22.3 \text{ bits (11)}, Expect = 0.80
Identities = 11/11 (100%), Gaps = 0/11 (0%)
Strand=Plus/Plus
Query 29
              TGGAAGAAAGA
               11111111111
Sbjct 112529 TGGAAGAAGA
                          112539
```

Get selected sequences Select all Deselect all

```
Database: NCBI Genomic Reference Sequences
    Posted date: Feb 7, 2006 12:38 PM
 Number of letters in database: 142,297
 Number of sequences in database:
Lambda
          K
                  Η
                      1.31
    1.37
            0.711
Gapped
Lambda
                  н
           K
    1.37
          0.711
                      1.31
Matrix: blastn matrix:1 -3
Gap Penalties: Existence: 5, Extension: 2
Number of Sequences: 2
Number of Hits to DB: 0
Number of extensions: 0
Number of successful extensions: 0
Number of sequences better than 10: 0
Number of HSP's better than 10 without gapping: 0
Number of HSP's gapped: 0
Number of HSP's successfully gapped: 0
Length of query: 40
Length of database: 142297
Length adjustment: 11
Effective length of query: 29
Effective length of database: 142297
Effective search space: 4126613
Effective search space used: 4125975
A: 0
X1: 10 (19.8 bits)
X2: 15 (29.7 bits)
X3: 25 (49.6 bits)
S1: 10 (20.3 bits)
```

Entrez Genome Page 1 of 1

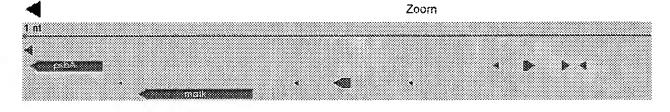


Genome > Eukaryota > Zea mays chloroplast, complete genome

Lineage: Eukaryota; Viridiplantae; Streptophyta; Streptophytina; Embryophyta; Tracheophyta; Euph Magnoliophyta; Liliopsida; commelinids; Poales; Poaceae; PACCAD clade; Panicoideae; Andropog

Genome Info:	Feature table:	BLAST homologs:	Links:	Reviev
Refseq: NC_001666	Proteins: 111	COG	Genome Project	Public
GenBank: <u>X86563</u>	Structural RNAs: <u>47</u>	3D Structure	Refseq FTP	Refse
Length: 140,384 nt	Genes: <u>155</u>	TaxMap	GenBank FTP	Seq.S
GC Content: 38%	Others: 153	TaxPiot	BLAST	Seque
Topology: circular	Total: 466	GenePlot	TraceAssembly	Comp
Molecule: DNA	Contigs: 1	gMap	CDD	Organ
Gen.Code: 1			Other genomes for species	

Gene Classification based on <u>COG functional categories</u> Search gene, GeneID or locus_tag:



Comment and suggestions to: [info@ncbi.nlm.nih.gov]

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Peb 6 2006 06:28:59



results of NLAST

BLASTN 2.2.13 [Nov-27-2005]

Reference:

Altschul, Stephen F., Thomas L. Madden, Alejandro A. Schäffer, Jinghui Zhang, Zheng Zhang, Webb Miller, and David J. Lipman (1997), "Gapped BLAST and PSI-BLAST: a new generation of protein database search programs", Nucleic Acids Res. 25:3389-3402.

RID: 1139520074-12515-142933253334.BLAST04

Database: NCBI Genomic Reference Sequences

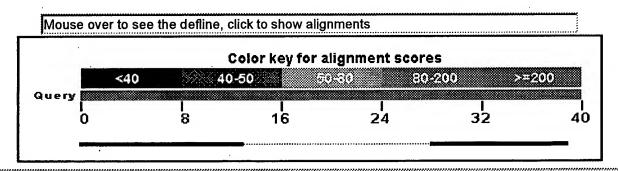
648,380 sequences; 5,833,944,919 total letters

If you have any problems or questions with the results of this search please refer to the ${\tt BLAST\ FAQs}$

Taxonomy reports

Query= Length=40

Distribution of 3 Blast Hits on the Query Sequence



Sequences producing significant alignments:

Score E (Bits) Value

<u>gi|11994090|ref|NC 001666.2|</u> Zea mays chloroplast, complete geno <u>22.3</u> 0.80

Alignments

Get selected sequences Select all Deselect all

Score = 22.3 bits (11), Expect = 0.80
Identities = 11/11 (100%), Gaps = 0/11 (0%)
Strand=Plus/Plus

```
Query 3
            TCGATCCAAAA
             Sbjct 66973
            TCGATCCAAAA
                        66983
Score = 22.3 \text{ bits (11)}, Expect = 0.80
Identities = 11/11 (100%), Gaps = 0/11 (0%)
Strand=Plus/Plus
            AATCGATCCAA 11
Query 1
             Sbjct 73754 AATCGATCCAA
                        73764
Score = 22.3 \text{ bits (11)}, Expect = 0.80
Identities = 11/11 (100%), Gaps = 0/11 (0%)
Strand=Plus/Plus
Query 29
              TGGAAGAAAGA 39
              Sbjct 112529 TGGAAGAAAGA
                         112539
```

Get selected sequences Select all

Deselect all

```
Database: NCBI Genomic Reference Sequences
    Posted date: Feb 7, 2006 12:38 PM
  Number of letters in database: 142,297
  Number of sequences in database: 2
Lambda
           K
                  Н
            0.711
                      1.31
    1.37
Gapped
Lambda
           K
                  Н
    1.37
           0.711
                      1.31
Matrix: blastn matrix:1 -3
Gap Penalties: Existence: 5, Extension: 2
Number of Sequences: 2
Number of Hits to DB: 0
Number of extensions: 0
Number of successful extensions: 0
Number of sequences better than 10: 0
Number of HSP's better than 10 without gapping: 0
Number of HSP's gapped: 0
Number of HSP's successfully gapped: 0
Length of query: 40
Length of database: 142297
Length adjustment: 11
Effective length of query: 29
Effective length of database: 142297
Effective search space: 4126613
Effective search space used: 4125975
A: 0
X1: 10 (19.8 bits)
X2: 15 (29.7 bits)
X3: 25 (49.6 bits)
S1: 10 (20.3 bits)
```